

JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-21FT1BUG, AV-21FT1SUG

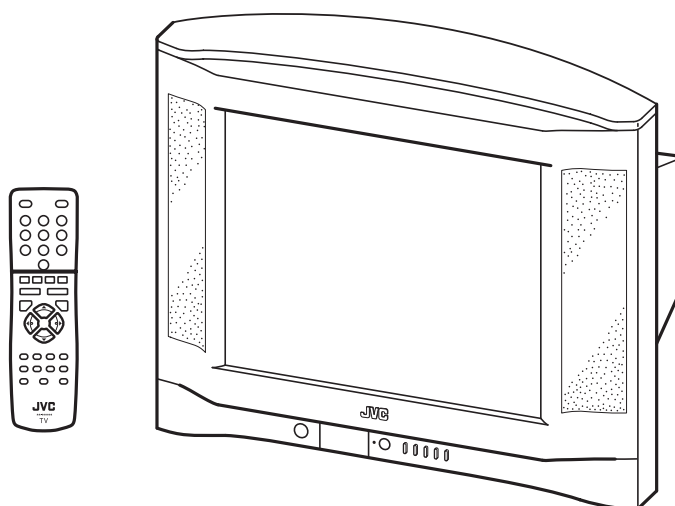


TABLE OF CONTENTS

1	PRECAUTION.....	1-3
2	SPECIFIC SERVICE INSTRUCTIONS.....	1-4
3	DISASSEMBLY	1-5
4	ADJUSTMENT	1-8
5	TROUBLESHOOTING	1-12

SPECIFICATION

Items		Contents	
		AV-21FT1BUG	AV-21FT1SUG
Dimensions (W × H × D)		64.9cm × 46.8cm × 47.4cm	
Mass		23kg	
TV RF System		CCIR (B/G, D/K, I , L/L')	
Colour System		PAL / SECAM / NTSC (Only in EXT mode)	
Stereo System		A2 (B/G, D/K) / NICAM (B/G, I, D/K, L)	
Teletext System		Fastext (UK system) TOP (German system) WST(World standard system)	
Receiving Frequency	VHF UHF French CATV	47MHz ~ 470MHz 470MHz ~ 862MHz 116MHz ~ 172MHz / 220MHz ~ 469MHz	
Intermediate Frequency	VIF SIF	38.9MHz (B/G, D/K, I , L) / 33.95MHz (L') 33.4MHz (5.5MHz:B/G) / 32.9MHz (6.0MHz:I) / 32.4MHz (6.5MHz:L, D/K) / 40.45MHz (6.5MHz:L')	
Colour Sub Carrier Frequency	PAL SECAM NTSC	4.43MHz 4.40625MHz / 4.25MHz 3.58MHz / 4.43MHz	
Power Input		AC220V ~ AC240V, 50Hz	
Power Consumption		59W, standby : 3W	
Aerial Input Terminal		75Ω unbalanced, coaxial	
Picture Tube		Visible size : 51cm (Measured diagonally)	
Audio Power Output		4.5W + 4.5W	
EXT-1 / EXT-2 (Input / Output)		21-pin Euro connector (SCART socket × 2)	
EXT-3 (Input)	Video Audio (L/R)	1V(p-p) 75Ω (RCA pin jack × 1) 500mV(rms) (-4dBs), High impedance (RCA pin jack × 2)	
Headphone Jack		Stereo mini jack (Ø3.5mm) × 1	
Remote Control Unit		RM-C1514B (AAA/R03 dry battery × 2)	RM-C1514 (AAA/R03 dry battery × 2)

Design & specifications are subject to change without notice.

SECTION 1

PRECAUTION

1.1 SAFETY PRECAUTIONS

- (1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- (4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND, the ISOLATED (NEUTRAL) : (\equiv) side GND and EARTH : (\oplus) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.
- (5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).
- (6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- (7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10k Ω 2W resistor to the anode button.

- (8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test

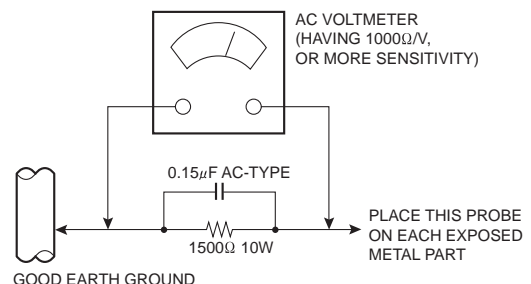
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2

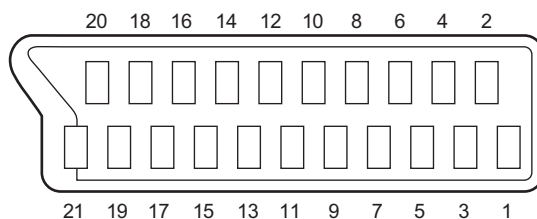
SPECIFIC SERVICE INSTRUCTIONS

2.1 21-pin Euro connector (SCART) : EXT-1/EXT-2

Pin No.	Signal designation	Matching value	EXT-1	EXT-2
1	AUDIO R output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)
2	AUDIO R input	500mV(rms) (Nominal), High impedance	Used (R1)	Used (R2)
3	AUDIO L output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)
4	AUDIO GND	---	Used	Used
5	GND (B)	---	Used	Used
6	AUDIO L input	500mV(rms) (Nominal), High impedance	Used (L1)	Used (L2)
7	B input	700mV _(B-W) , 75 Ω	Used	NC
8	FUNCTION SW (SLOW SW)	Low : 0V-3V, High : 8V-12V, High impedance	Used	Used
9	GND (G)	---	Used	NC
10	SCL / T-V LINK	---	Not used	NC
11	G input	700mV(B-W), 75 Ω	Used	NC
12	SDA	---	Not used	NC
13	GND (R)	---	Used	Used
14	GND (YS)	---	Used	Used
15	R / C input	R : 700mV _(B-W) , 75 Ω C : 300mV _(P-P) , 75 Ω	Used (R)	Used (C)
16	Ys input (FAST SW)	Low : 0V-0.4V, High : 1V-3V, 75 Ω	Used	NC
17	GND (VIDEO output)	---	Used	Used
18	GND (VIDEO input)	---	Used	Used
19	VIDEO output	1V _(P-P) (Negative sync), 75 Ω	Used (TV OUT)	Used (LINE OUT)
20	VIDEO / Y input	1V _(P-P) (Negative sync), 75 Ω	Used	Used
21	COMMON GND	---	Used	Used

(P-P= Peak to Peak, B-W= Blanking to white peak)

[Pin assignment]



SECTION 3 DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

- (1) Unplug the power cord.
- (2) Remove the 6 screws [A].
- (3) Remove the 1 screw [B].
- (4) Withdraw the REAR COVER toward you.

3.1.2 REMOVING THE SIDE SPEAKER

- Remove the REAR COVER.
 - (1) Remove the 4 screws [C], attaching the SPEAKER.
 - (2) Follow the same steps when removing the other hand SPEAKER.

3.1.3 REMOVING THE MAIN PWB

- Remove the REAR COVER.
 - (1) Slightly raise the both sides of the MAIN PWB by hand and withdraw the MAIN PWB backward.
(If necessary, take off the wire clamp, connectors etc.)

3.1.4 CHECKING THE PW BOARD

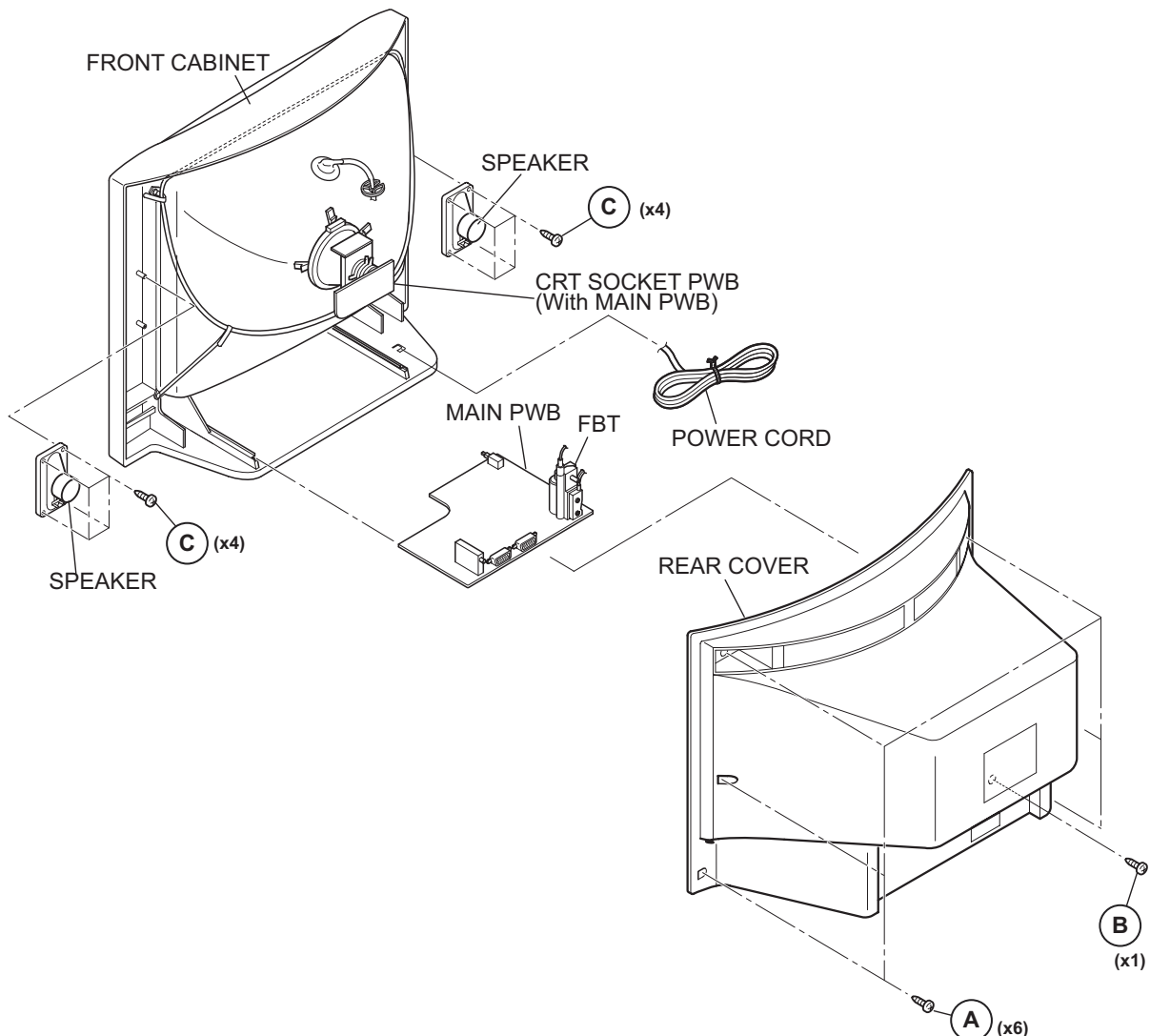
- To check the back side of the PW Board.
 - (1) Pull out the MAIN PWB. (Refer to REMOVING THE MAIN PWB).
 - (2) Erect the MAIN PWB vertically so that you can easily check the back side of the PW Board.

3.1.5 CAUTION

- When erecting the MAIN PWB, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

3.1.6 WIRE CLAMPING AND CABLE TYING

- (1) Be sure to clamp the wire.
- (2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.



3.2 REPLACEMENT OF MEMORY IC

3.2.1 MEMORY IC

This TV use memory IC. In the memory IC, there are memorized data for correctly operating the video and deflection circuits. When replacing memory IC with a blanking memory IC, the set is automatically memorized following SERVICE MANU initial data.

3.2.2 SERVICE MENU ADJUSTMENT ITEMS

There are 22 SERVICE ADJUSTMENT ITEMS. After replacing memory IC, automatically memorized following initial data.

No.	Adjustment item
1	PARABOLA
2	HOR WIDTH
3	CORNER
4	HOR PARAL
5	V. LINEAR
6	EW TRAPEZ
7	S CORRECT
8	H BOW
9	VERT SIZE
10	VERT CENT
11	RED GAIN
12	GRN GAIN
13	BLUE GAIN
14	RED BIAS
15	GRN BIAS
16	HOR CEN
17	AGC LEVEL
18	G2-SCREEN
19	AFT
20	OPTION1
21	OPTION2
22	SHIPPING

3.2.3 FACTORY SETTING

3.2.3.1 FRONT BUTTON SETTING AND INITIAL SETTING

Item	Value
MAIN POWER	OFF(SUB POWER ON)
PR POSITION	01
INPUT MODE	TV

3.2.3.2 USER MENU SETTING

Item	Value
PICTURE	
BRIGHTNESS	Center
COLOUR	Center
CONTRAST	Center
SHARPNESS	Center
SOUND	
VOLUME	18
BASS	Center
TREBLE	Center
BALANCE	Center
FEATURES	
LANGUAGE	GB
CHILD LOCK	OFF
CLOCK	--:--
WAKE TIME	OFF
WAKE PR	01
NOISE RED.	ON
PIC.TILT	Center
INSTALL	
ATSS	GB
EDIT	-----
SYSTEM	GB
CHANNEL	C 38
FREQUENCY	607. 25
NAME	-----
PROGRAM	05
STORE TO	05

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

- (1) Avoid heating for more than 3 seconds.
- (2) Do not rub the electrodes and the resist parts of the pattern.
- (3) When removing a chip part, melt the solder adequately.
- (4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

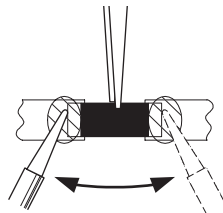
- (1) Use a high insulation soldering iron with a thin pointed end of it.
- (2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

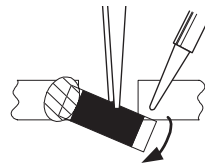
1. How to remove Chip parts

[Resistors, capacitors, etc.]

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with the tweezers and remove the chip part.

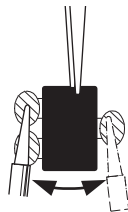


[Transistors, diodes, variable resistors, etc.]

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



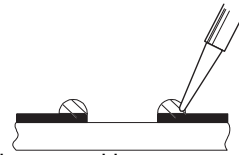
NOTE :

After removing the part, remove remaining solder from the pattern.

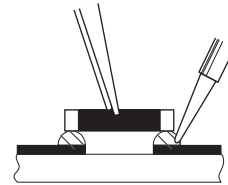
2. How to install Chip parts

[Resistors, capacitors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.

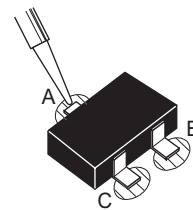


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

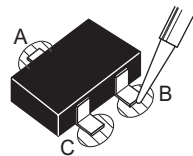


[Transistors, diodes, variable resistors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



- (4) Then solder leads **B** and **C**.



SECTION 4 ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
- (2) Make sure that connection is correctly made AC to AC power source.
- (3) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
- (4) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
- (5) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 MEASURING INSTRUMENT AND FIXTURES

- (1) DC voltmeter (or digital voltmeter)
- (2) Signal generator (Pattern generator : PAL / SECAM / NTSC)
- (3) Remote control unit.

4.3 BASIC OPERATION OF SERVICE MENU

4.3.1 TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

4.3.2 SERVICE ADJUSTMENT ITEMS

There are 22 adjustment items.

No.	Adjustment item	No.	Adjustment item
1	PARABOLA	12	GRN GAIN
2	HOR WIDTH	13	BLUE GAIN
3	CORNER	14	RED BIAS
4	HOR PARAL	15	GRN BIAS
5	V. LINEAR	16	HOR CEN
6	EW TRAPEZ	17	AGC LEVEL
7	S CORRECT	18	G2-SCREEN
8	H BOW	19	AFT
9	VERT SIZE	20	OPTION1
10	VERT CENT	21	OPTION2
11	RED GAIN	22	SHIPPING

4.3.3 HOW TO ENTER SERVICE MENU

- (1) Press [i] (Information) key and [Muting] key same time then enter SERVICE MENU.

4.3.4 SELECTION OF MENU SCREEN

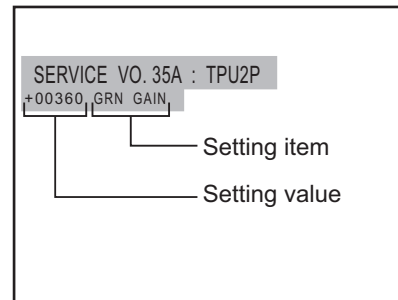
- (1) Press [▲] / [▼] keys of the REMOTE CONTROL UNIT and select adjustment item.

4.3.5 SETTING VALUE OF ADJUSTMENT ITEMS

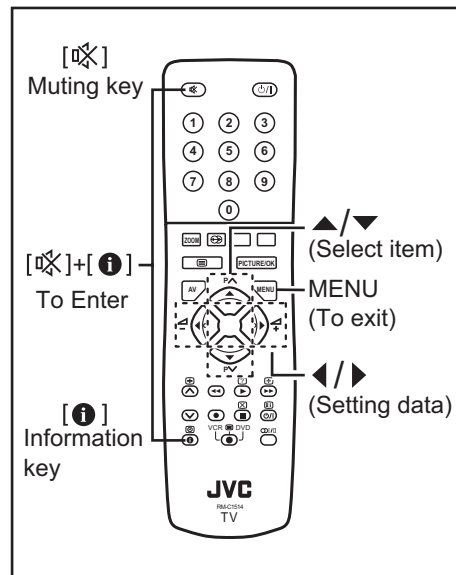
- (1) Press [◀] / [▶] keys of the REMOTE CONTROL UNIT and setting value of adjustment items.

4.3.6 HOW TO EXIT SERVICE MENU

- (1) Press [MENU] key, then exit SERVICE MENU.



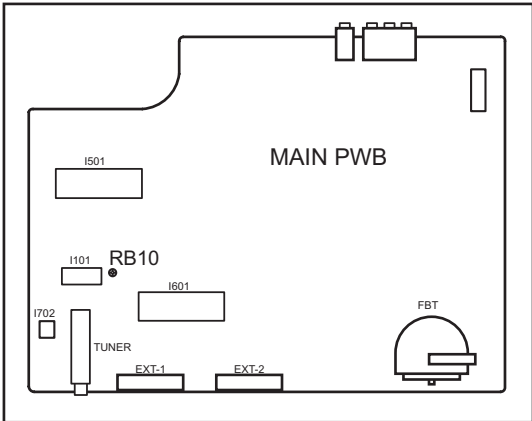
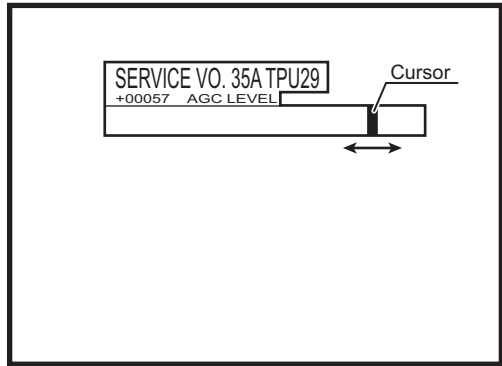
SERVICE MENU SCREEN



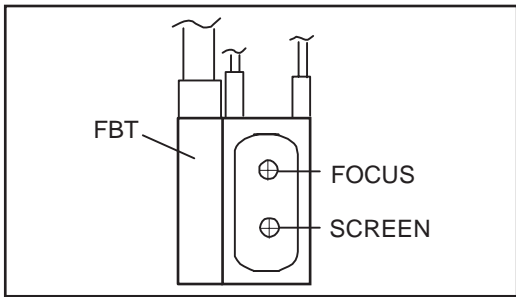
REMOTE CONTROL UNIT

4.4 ADJUSTMENT PROCEDURE

4.4.1 AGC

Item	Measuring instrument	Test point	Adjustment part	Description
AGC adjustment	Signal generator Remote control unit		AGC AGC VR : (RB10) [MAIN PWB]	(1) Receive a colour bar pattern signal. (2) Select < AGC >. (3) Adjust the AGC VR (RB10) to bring the cursor to central position.
				

4.4.2 FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator Remote control unit		FOCUS VR [On FBT]	(1) Receive a cross-hatch signal. (2) Adjust the FOCUS volume on the FBT to have the best resolution on the screen.
				

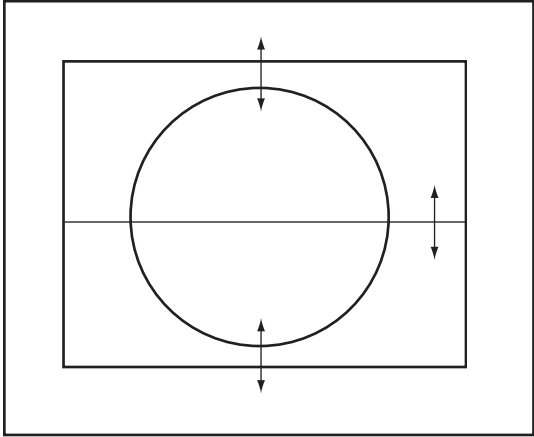
4.4.3 SCREEN ADJUSTMENT

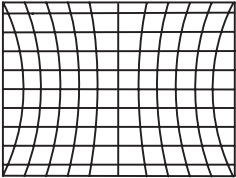
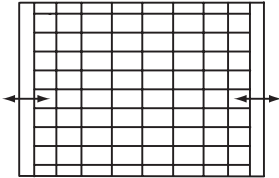
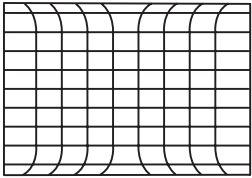
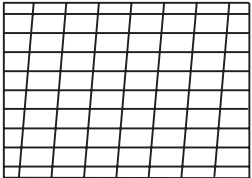
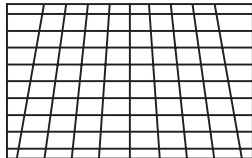
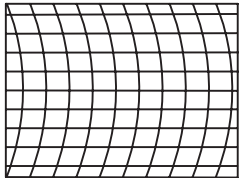
Item	Measuring instrument	Test point	Adjustment part	Description
SCREEN adjustment	Signal generator Remote control unit		G2-SCREEN SCREEN VR [On FBT]	(1) Receive a colour bar pattern signal. (2) Select < G2-SCREEN >. (3) Adjust the SCREEN VR on the FBT to bring the cursor to central position.

4.4.4 WHITE BALANCE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE adjustment	Signal generator Remote control unit		RED BIAS GRN BIAS RED GAIN GRN GAIN BLUE GAIN	(1) Receive a black and white pattern signal (colour off). (2) Select < RED BIAS >, < GRN BIAS > and adjust the screen until the black portion in the screen becomes black. (3) Select < RED GAIN >, < GRN GAIN >, < BLUE GAIN > and adjust the screen until the white portion in the screen become white.

4.4.5 DEFLECTION CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL GEOMETORY adjustment	Signal generator Remote control unit		V. LINEAR S CORRECT VERT SIZE VERT CENT	(1) Receive a circle pattern signal. (2) Select < V. LINEAR >(Veretical linearity), < S CORRECT > (S correction), < VERT SIZE >(Vertical size), < VERT CENT >(Vertical center) respectively. (3) Adjust to compensate for vertical distortion.
				
HORIZONTAL POSITION adjustment	Signal generator Remote control unit		HOR CEN	(1) Receive a circle pattern signal. (2) Select < HOR CEN >(Horizontal center). (3) Adjust to have the picture in the center of the screen.

Item	Measuring instrument	Test point	Adjustment part	Description
HORIZONTAL GEOMETORY adjustment	Signal generator Remote control unit		PARABOLA HOR WIDTH CORNER HOR PARAL EW TRAPEZ H BOW	<p>(1) Receive a cross-hatch pattern signal.</p> <p>(2) Select < PALABOLA >(Side pin), < HOR WIDTH > (Horizontal width), < CORNER >(Top/bottom corner), < HOR PARAL >(Horizontal parallel), < EW TRAPEZ >(Trapezium), < H BOW > (Horizontal bow).</p> <p>(3) Adjust these items to compensate for geometrical distortion.</p>
<div style="border: 1px solid black; padding: 10px; text-align: center;">  <p>PARABOLA</p>  <p>HOR WIDTH</p>  <p>CORNER</p>  <p>HOR PARAL</p>  <p>EW TRAPEZ</p>  <p>H BOW</p> </div>				

SECTION 5

TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.



VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY VIDEO DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YA009)



Printed in Japan
WPC

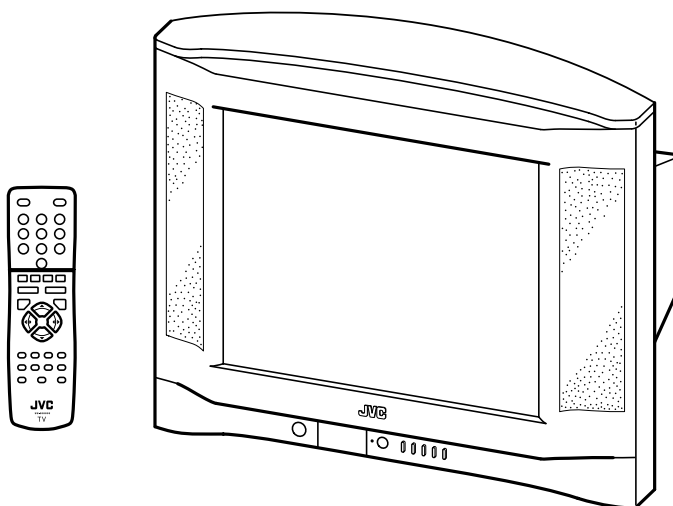
JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

AV-21FT1BUG, AV-21FT1SUG

CD-ROM No.SML200310



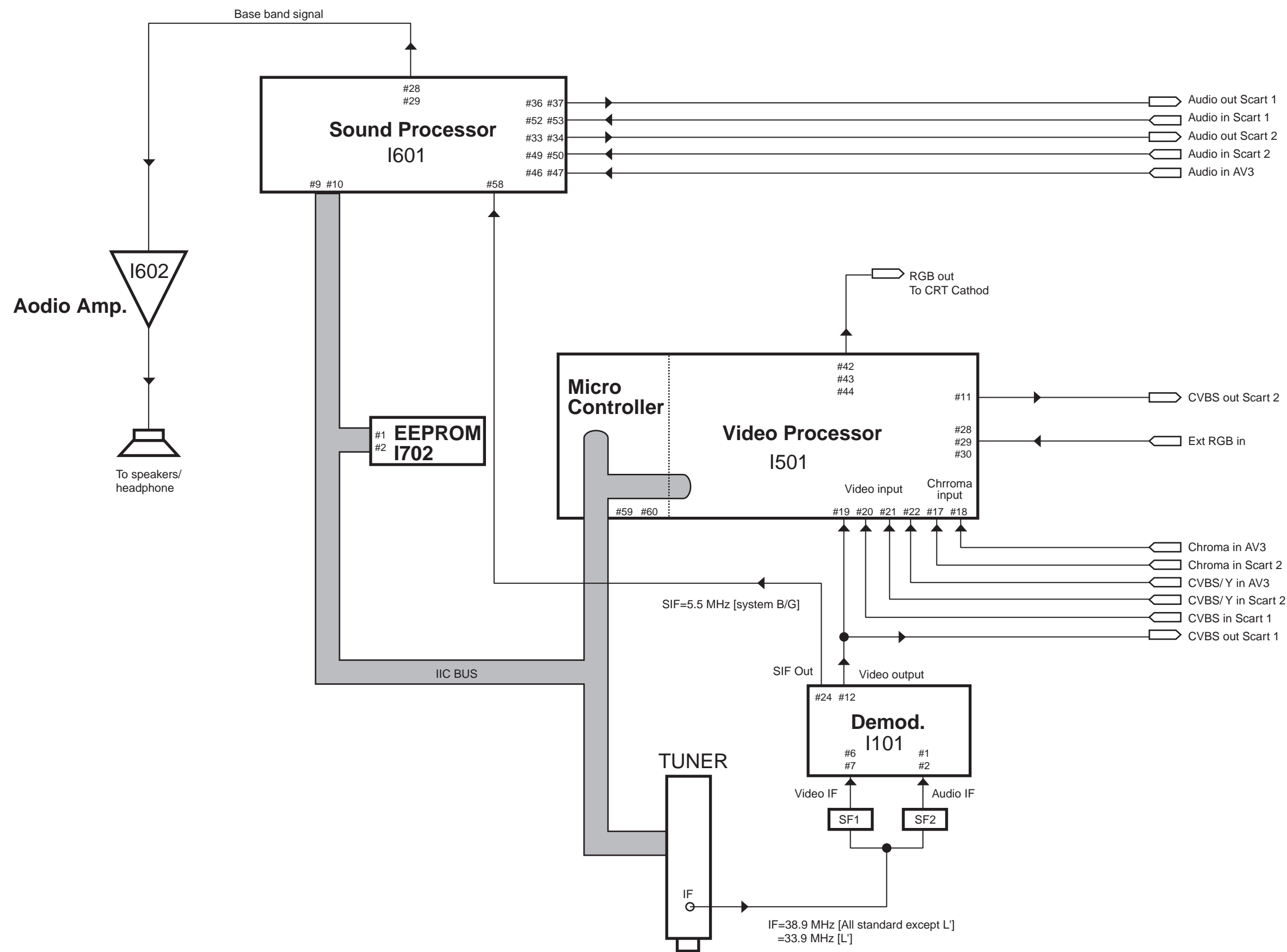
AV-21FT1BUG, AV-21FT1SUG STANDARD CIRCUIT DIAGRAM

CONTENTS

SEMICONDUCTOR SHAPES	2-2
BLOCK DIAGRAM	2-3
CIRCUIT DIAGRAMS	
<i>MAIN & CRT SOCKET PWB CIRCUIT DIAGRAM</i>	2-5
PATTERN DIAGRAMS	
<i>MAIN PWB PATTERN</i>	2-7
<i>CRT SOCKET PWB PATTERN</i>	2-9

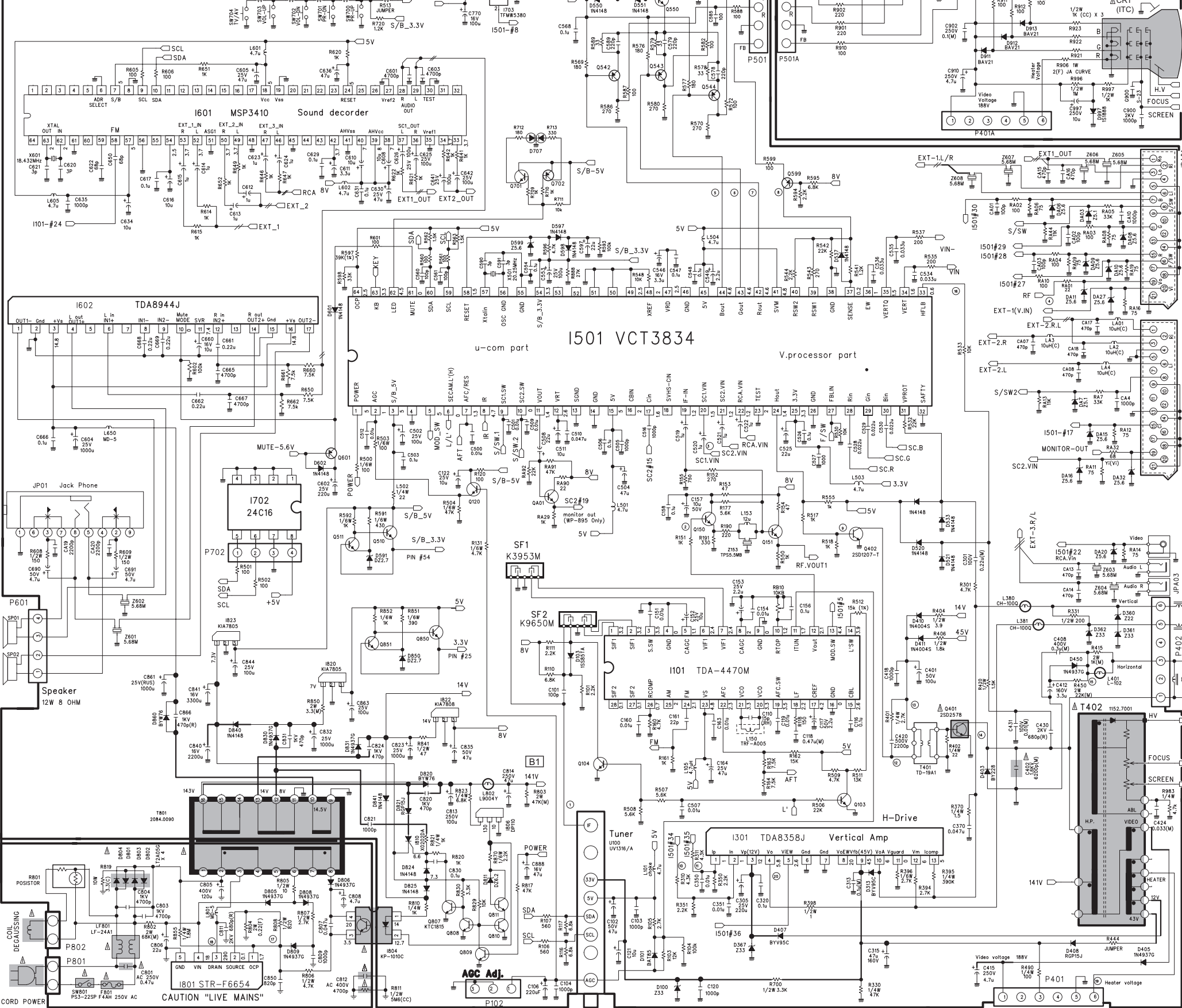
MEMO

BLOCK DIAGRAM

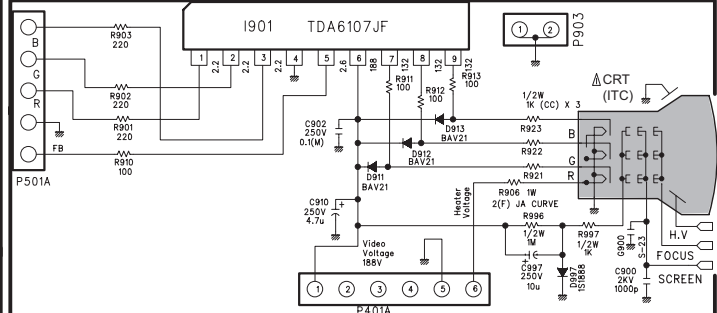


CIRCUIT DIAGRAMS MAIN & CRT SOCKET PWB CIRCUIT DIAGRAM

MAIN PWB



CRT SOCKET PWB



NOTE:
1. RESISTANCE IS SHOWN IN OHM. K=1000, M=1000000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES ARE EXPRESSED IN uF
3. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL LINE 230V AC VOLTAGE READINGS SHOWN ARE NORMAL VALUES AND MAY VARY +20% EXCEPT H.V.
4. THIS CIRCUIT DIAGRAM IS A STANDARD ONE CIRCUIT PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE

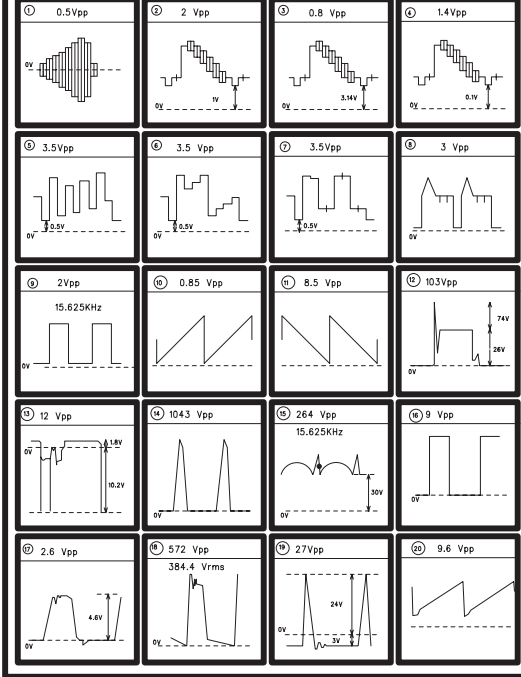
WARNING:
BEFORE SERVICING THE CHASSIS, READ "X-RAY RADIATION", "SAFETY PRECAUTION", AND "PRODUCT SAFETY NOTICE" IN SERVICE MANUAL

CAUTION TO SERVICE TECHNICIANS:
BEFORE RETURNING THE RECEIVER TO CUSTOMER, LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS SHOULD BE PERFORMED TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

RESISTOR	CAPACITOR	COIL
CARBON FILM	ELECTRO	PEAKING
R M-OXIDE	CERAMIC	CHOKE
CARBON COMP	CERAMIC CH	BEAD
FUSIBLE	ELECTRO NONPOLAR	
CEMENT	MYLAR	

* WAVEFORMS

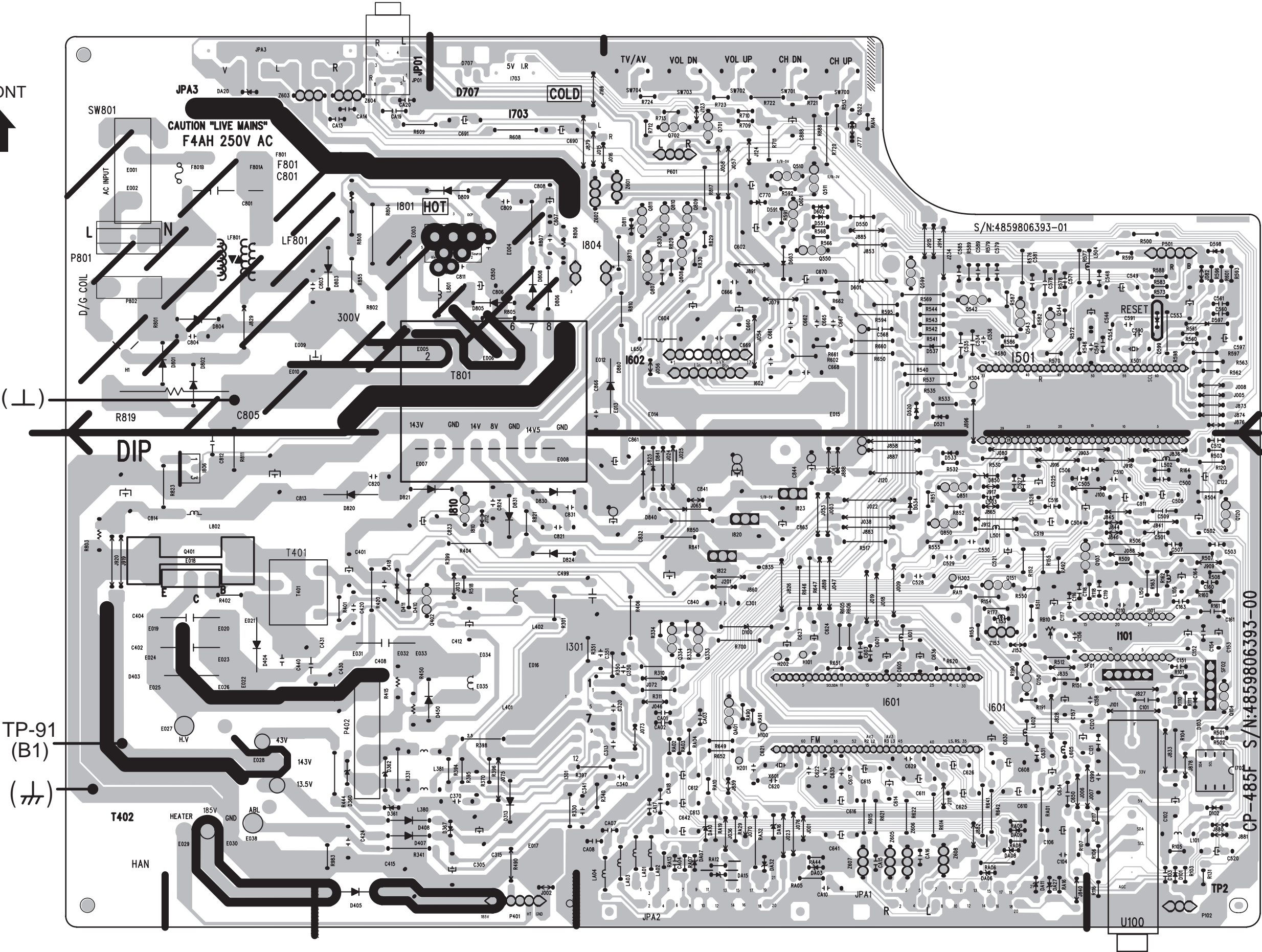
TEST CONDITIONS : PAL-B/G COLOR BAR (NOR.1)



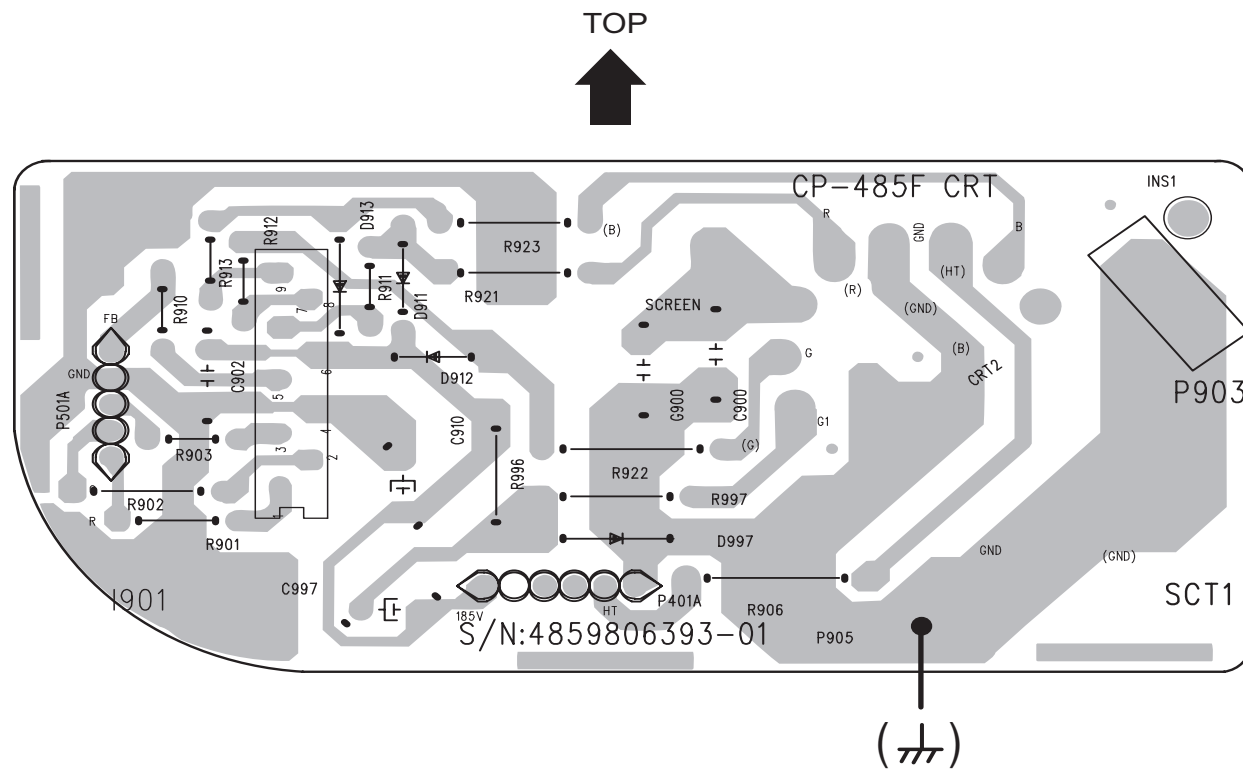
PRODUCT SAFETY NOTE :
THE COMPONENTS MARKED WITH ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL OR SPECIFIED ONE IN THE PART LIST.
DON'T DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

PATTERN DIAGRAMS MAIN PWB PATTERN

FRONT
↑



CRT SOCKET PWB PATTERN





VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY VIDEO DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan


(No.YA009)



Printed in Japan
WPC

PARTS LIST

CAUTION

- The parts identified by the  symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

CONTENTS

- USING PW BOARD & REMOTE CONTROL UNIT 3-1
- EXPLODED VIEW PARTS LIST 3-2
- EXPLODED VIEW 3-2, 3
- PRINTED WIRING BOARD PARTS LIST (With CRT SOCKET PW BOARD) 3-4
- PACKING / PACKING PARTS LIST 3-7

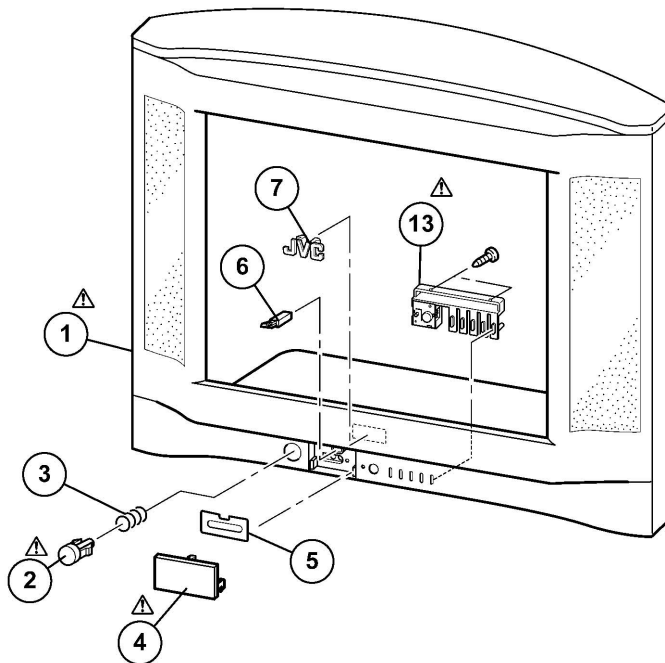
USING P.W. BOARD AND REMOTE CONTROL UNIT

<div>Model</div> <div>PWB ASS'Y</div>	AV-21FT1BUG	AV-21FT1SUG
MAIN PWB (With CRT SOCKET PWB)	4859806393	←
REMOTE CONTROL UNIT	48BC1514B- (RM-C1514B)	48BC1514-- (RM-C1514)

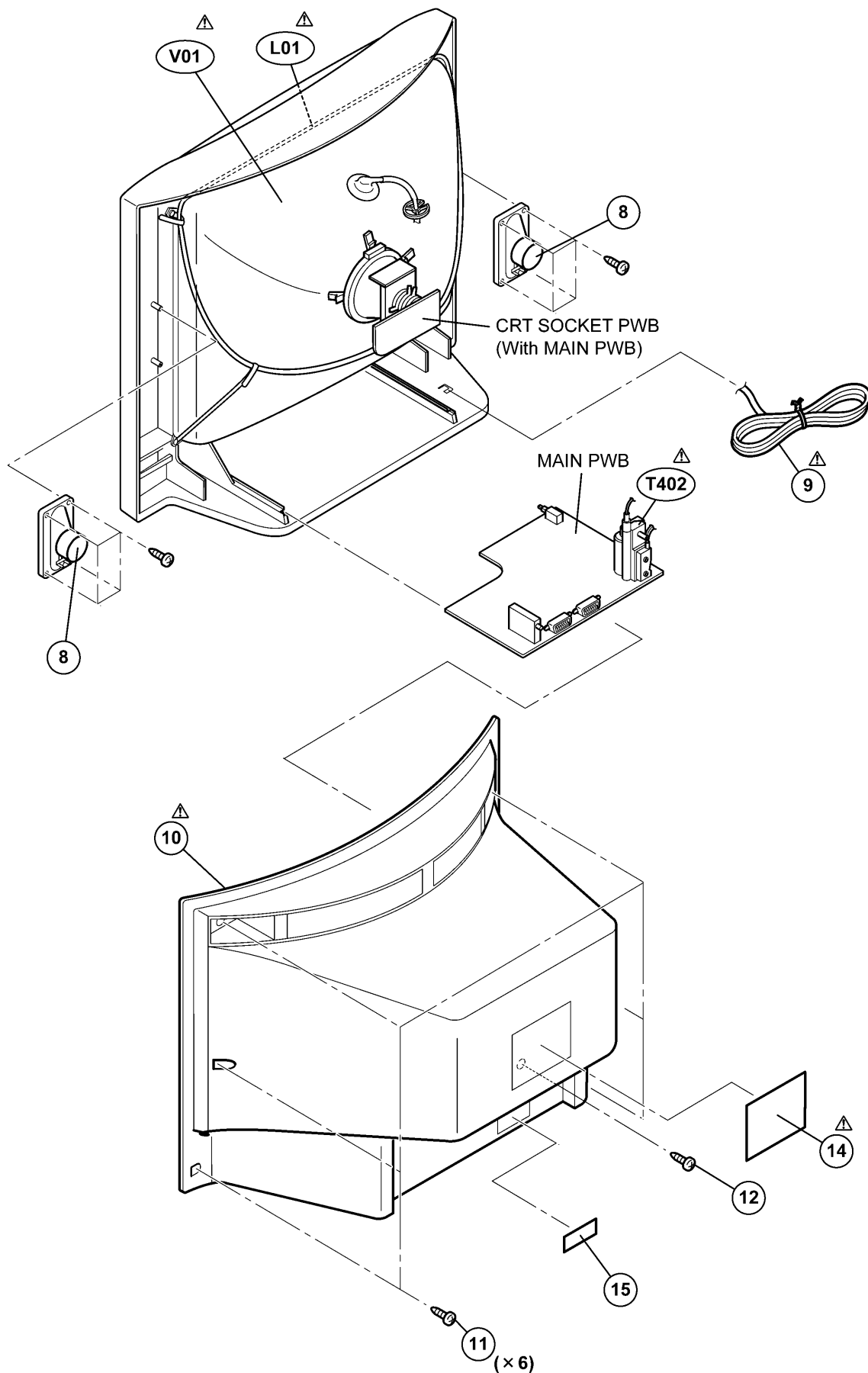
EXPLODED VIEW PARTS LIST

△ Ref.No.	Part No.	Part Name	Description
△ V01	4859637360	CRT (PHILIPS 21")	Inc.DEF YOKE, PC MAGNET
△ L01	58G0000147	COIL DEGAUSSING	
△ T402	50H0000240	FBT	
△ 1	4852087201	MASK FRONT	[AV-21FT1BUG]
△ 1	4852087211	MASK FRONT	[AV-21FT1SUG]
△ 2	4854867401	BUTTON POWER	[AV-21FT1BUG]
△ 2	4854867411	BUTTON POWER	[AV-21FT1SUG]
△ 3	4856716000	SPRING	
△ 4	4852824601	DOOR	[AV-21FT1BUG]
△ 4	4852824611	DOOR	[AV-21FT1SUG]
△ 5	4855060900	DECO CTRL	
△ 6	4857923300	DOOR LOCK	
△ 7	48556243SD02	MARK BRAND	[AV-21FT1BUG]
△ 7	48556243SD01	MARK BRAND	[AV-21FT1SUG]
△ 8	4858311110	SPEAKER	(× 2)
△ 9	4859903511	CORD POWER	
△ 10	4852166401	COVER BACK	[AV-21FT1BUG]
△ 10	4852166411	COVER BACK	[AV-21FT1SUG]
△ 11	7172401612	SCREW TAPPING	(× 6)
△ 12	7178301012	SCREW TAPPING	
△ 13	4854959201	BUTTON CTRL ASSY	[AV-21FT1BUG]
△ 13	4851951111	BUTTON CTRL ASSY	[AV-21FT1SUG]
△ 14	4855415800	S/PLATE	
△ 15	485580002207	LABEL SERIAL	

EXPLODED VIEW



EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

Symbol No.	Part No.	Part Name	Description
I101	1TDA4470M-	IC IF	TDA4470-M
I301	1TDA8358J-	IC VERTICAL	TDA8358J
I501	1DW3834AE4	IC MAIN	DW3834F-C4-AE4 DW14
I601	1MSP3410V3	IC SOUND	MSP3410G-V3
I602	1TDA8944J-	IC AUDIO	TDA8944J
I702	1AT24C16PC	IC MEMORY	AT24C16-10PC
I703	1TSOP1238W	IC PREAMP	TSOP1238W11
I801	1STRF6654-	IC SMPS	STR-F6654
Δ I804	1KP1010C--	IC PHOTO COUPLER	KP-1010C
I806	1SE110N---	IC ERROR AMP	SE110N
I810	TX0202DA--	THYRISTOR	X0202DA
I820	1L7805CV--	IC REGULATOR	L7805CV
I822	1L7808CV--	IC REGULATOR	L7808CV
I823	1L7805CV--	IC REGULATOR	L7805CV
I901	1TDA6107Q-	IC VIDEO	TDA6107Q
Q103	T2SC5343Y-	TR	2SC5343Y
Q104	T2SC5343Y-	TR	2SC5343Y
Q120	T2SC5343Y-	TR	2SC5343Y
Q150	T2SC5343Y-	TR	2SC5343Y
Q151	T2SC5343Y-	TR	2SC5343Y
Δ Q401	T2SD1578--	TR	2SD1578
Q402	T2SD1207T-	TR	(TAPPING) 2SD1207-T
Q510	T2SC5343Y-	TR	2SC5343Y
Q511	T2SC5343Y-	TR	2SC5343Y
Q542	T2SA1980Y-	TR	2SA1980Y
Q543	T2SA1980Y-	TR	2SA1980Y
Q544	T2SA1980Y-	TR	2SA1980Y
Q550	T2SC5343Y-	TR	2SC5343Y
Q599	T2SA1980Y-	TR	2SA1980Y
Q601	T2SA1980Y-	TR	2SA1980Y
Q701	T2SC5343Y-	TR	2SC5343Y
Q702	T2SA1980Y-	TR	2SA1980Y
Q807	T2SC5343Y-	TR	2SC5343Y
Q808	T2SC5343Y-	TR	2SC5343Y
Q809	T2SC5343Y-	TR	2SC5343Y
Q810	T2SC5343Y-	TR	2SC5343Y
Q811	T2SC5343Y-	TR	2SC5343Y
Q850	T2SC5343Y-	TR	2SC5343Y
Q851	T2SC5343Y-	TR	2SC5343Y
Q401	T2SC5343Y-	TR	2SC5343Y
D100	DTZX33B---	DIODE ZENER	TZX33B (TAPPING)
D101	DBAT85----	DIODE	BAT85 (TAPPING)
D103	DBA282----	DIODE	BA282
D313	D1N4937G--	DIODE	1N4937G
D360	DTZX22C---	DIODE ZENER	TZX22C (TAPPING)
D361	DTZX33B---	DIODE ZENER	TZX33B (TAPPING)
D362	DTZX33B---	DIODE ZENER	TZX33B (TAPPING)
D367	DTZX33B---	DIODE ZENER	TZX33B (TAPPING)
D403	DBY228----	DIODE	BY228
D405	D1N4937G--	DIODE	1N4937G
D407	DRGP15J----	DIODE	RG15J
D408	DRGP15J----	DIODE	RG15J
D410	D1N4004S--	DIODE	1N4004S
D411	D1N4004S--	DIODE	1N4004S
D450	D1N4937G--	DIODE	1N4937G
D520	D1N4148---	DIODE	1N4148 (TAPPING)
D521	D1N4148---	DIODE	1N4148 (TAPPING)
D533	D1N4148---	DIODE	1N4148 (TAPPING)
D534	D1N4148---	DIODE	1N4148 (TAPPING)
D537	D1N4148---	DIODE	1N4148 (TAPPING)
D550	D1N4148---	DIODE	1N4148 (TAPPING)
D551	D1N4148---	DIODE	1N4148 (TAPPING)
D591	DTZX2V7A--	DIODE ZENER	TZX2V7A (TAPPING)
D597	D1N4148---	DIODE	1N4148 (TAPPING)
D598	D1N4148---	DIODE	1N4148 (TAPPING)
D599	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
D601	D1N4148---	DIODE	1N4148 (TAPPING)
D602	D1N4148---	DIODE	1N4148 (TAPPING)
Δ D801	DLT2A05G--	DIODE	LT2A05G
Δ D802	DLT2A05G--	DIODE	LT2A05G
Δ D803	DLT2A05G--	DIODE	LT2A05G
Δ D804	DLT2A05G--	DIODE	LT2A05G
D805	D1N4937G--	DIODE	1N4937G
D806	D1N4937G--	DIODE	1N4937G
D808	D1N4937G--	DIODE	1N4937G
D809	D1N4937G--	DIODE	1N4937G
D811	DTZX6V2----	DIODE ZENER	TZX6V2B (TAPPING)
D820	DBYW76----	DIODE	BYW76
D821	DRGP15J----	DIODE	RG15J
D824	D1N4148---	DIODE	1N4148 (TAPPING)
D825	D1N4148---	DIODE	1N4148 (TAPPING)
D830	D1N4937G--	DIODE	1N4937G
D831	D1N4937G--	DIODE	1N4937G
D840	D1N4004S--	DIODE	1N4004S
D841	D1N4148---	DIODE	1N4148 (TAPPING)
D850	DTZX2V7A--	DIODE ZENER	TZX2V7A (TAPPING)

Symbol No.	Part No.	Part Name	Description
D860	DBYW76----	DIODE	BYW76
D911	D1N4004S--	DIODE	1N4004S
D912	D1N4004S--	DIODE	1N4004S
D913	D1N4004S--	DIODE	1N4004S
D997	DLT2A05G--	DIODE	LT2A05G
DA03	DTZX5V1B--	DIODE ZENER	TZX5V1B (TAPPING)
DA06	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA07	DTZX5V1B--	DIODE ZENER	TZX5V1B (TAPPING)
DA08	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA09	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA10	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA11	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA15	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA16	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA20	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA27	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
DA32	DTZX5V6B--	DIODE ZENER	TZX5V6B (TAPPING)
C101	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C102	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C103	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C104	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C106	CEXF1H221V	C ELECTRO	50V RSS 220MF (10X16) TP
C110	CXCH1H150J	C CERA	50V CH 15PF J (TAPPING)
C116	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C117	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
C118	CMXL1J474J	C MYLAR	63V 0.47MF MKT
C119	CCZF1H103Z	C CERA	50V F 0.01MF Z
C120	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C121	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C122	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C151	CCZF1H103Z	C CERA	50V F 0.01MF Z
C152	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C153	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
C154	CCZF1H103Z	C CERA	50V F 0.01MF Z
C156	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C157	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C158	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C160	CCZF1H103Z	C CERA	50V F 0.01MF Z
C161	CZSL1H220J	C CERA	50V SL 22PF J (AXIAL)
C163	CCZF1H103Z	C CERA	50V F 0.01MF Z
C164	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C301	CMXM2A224J	C MYLAR	100V 0.22MF J BULK
C305	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP
C313	CMXM2A104J	C MYLAR	100V 0.1MF J TP
C315	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP
C320	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C350	CCZF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C351	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C370	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C401	CEXF1H101V	C ELECTRO	50V RSS 100MF (8*11.5) TP
Δ C402	CMYH3C622J	C MYLAR	1.6KV 6200PF J (BUP)
C408	CMYE2G304J	C MYLAR	400V 0.3MF J (PL)
C412	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP
C415	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16) TP
C418	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C420	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
C424	CMXM2A333J	C MYLAR	100V 0.033MF J TP
C430	CCYR3D681K	C CERA	2KV R 680PF K 125C
C431	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C500	CCZF1H103Z	C CERA	50V F 0.01MF Z
C501	CCZF1H103Z	C CERA	50V F 0.01MF Z
C502	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C503	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C504	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C505	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C506	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C507	CCZF1H103Z	C CERA	50V F 0.01MF Z
C508	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C509	CCZF1H103Z	C CERA	50V F 0.01MF Z
C510	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C511	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C512	CCZF1H103Z	C CERA	50V F 0.01MF Z
C516	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C519	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C520	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C521	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C522	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C525	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C526	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C527	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
C528	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)
C529	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)
C530	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)
C534	CCZB1H333K	C CERA	50V B 0.033MF K (AXIAL)
C535	CCZB1H333K	C CERA	50V B 0.033MF K (AXIAL)
C536	CCZB1H333K	C CERA	50V B 0.033MF K (AXIAL)
C546	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP

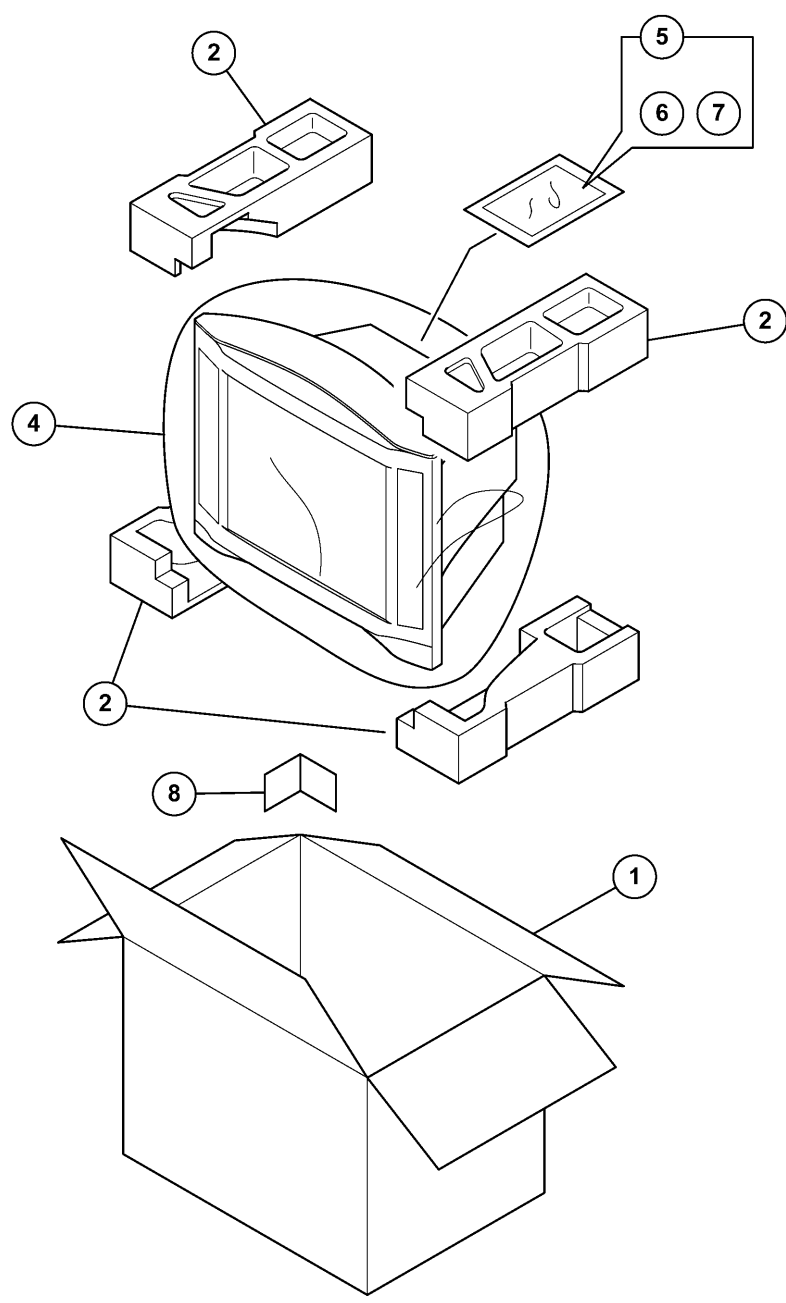
Symbol No.	Part No.	Part Name	Description
C547	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C548	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C549	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
C553	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C554	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C560	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C561	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C568	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C571	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C578	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)
C579	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)
C581	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C585	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
C589	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)
C590	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)
C591	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)
C597	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C601	CBZR1C472M	C CERA	Y5R 16V 4700PF M AXIAL
C602	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP
C603	CBZR1C472M	C CERA	Y5R 16V 4700PF M AXIAL
C604	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
C605	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C608	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C610	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C611	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP
C612	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C613	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C614	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C615	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C616	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C617	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C620	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)
C621	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)
C622	CXCH1H680J	C CERA	50V CH 68PF J (TAPPING)
C623	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C624	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C625	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C626	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C629	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C630	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C631	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C634	CEXF1E100V	C ELECTRO	25V RSS 10MF TP
C635	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C636	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C641	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C642	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C650	CZSL1H680J	C CERA	50V SL 68PF J (AXIAL)
C660	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7
C661	CMXM2A224J	C MYLAR	100V 0.22MF J BULK
C662	CMXM2A224J	C MYLAR	100V 0.22MF J BULK
C665	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
C666	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C667	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
C668	CMXM2A224J	C MYLAR	100V 0.22MF J BULK
C669	CMXM2A224J	C MYLAR	100V 0.22MF J BULK
C690	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5*11) TP
C691	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5*11) TP
C700	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C770	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
▲ C801	CL1UC3474M	C LINE ACROSS	0.47MF 1J (UCVSNDF/SV
C803	CCXF3A472Z	C CERA	1KV F 4700PF Z (T)
C804	CCXF3A472Z	C CERA	1KV F 4700PF Z (T)
C805	CEYN2G121P	C ELECTRO	400V LHS 120MF
C806	CEXF1H330V	C ELECTRO	50V RSS 33MF (6.3X11) TP
C807	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C808	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5*11) TP
C809	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C811	CCYR3D681K	C CERA	2KV R 680PF K 125C
▲ C812	CH1BF472M	C CERA AC	AC400V 4700PF M U/C/V
C813	CEXF2E101V	C ELECTRO	250V RSS 100MF 18X35.5
C814	CEYF2E470V	C ELECTRO	250V RSS 47MF (16X25
C820	CCYR3A471K	C CERA	1KV 470PF K 125C
C821	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C823	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
C824	CCXB3A471K	C CERA	1KV B 470PF K (T)
C830	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z (AXIAL)
C831	CCXB3A471K	C CERA	1KV B 470PF K (T)
C832	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
C835	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP
C840	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP
C841	CEXF1C332V	C ELECTRO	16V RSS 3300MF
C844	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C850	CCXB1H821K	C CERA	50V B 820PF K (TAPPING)
C861	CEXF1E102C	C ELECTRO	25V RUS 1000MF 13X20 TP
C863	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP
C866	CCYR3A471K	C CERA	1KV 470PF K 125C
C888	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP
C900	CCXB3D102K	C CERA	2KV B 1000 PF K (TAPPING)
C902	CMXL2E104K	C MYLAR	250V 0.1MF K MEU TP
C910	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16) TP
C997	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP

Symbol No.	Part No.	Part Name	Description
CA01	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
CA02	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
CA03	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)
CA04	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
CA07	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA08	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA10	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)
CA13	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA14	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA15	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA16	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA17	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA18	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
CA19	CCZB1H222K	C CERA	50V B 2200PF K (AXIAL)
CA20	CCZB1H222K	C CERA	50V B 2200PF K (AXIAL)
R101	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
R103	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J
R104	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R105	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
R106	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J
R107	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J
R110	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R111	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
R116	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R117	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R118	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
R120	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R131	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R151	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R152	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J
R153	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R154	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R155	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J
R160	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R161	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R162	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J
R163	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R164	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R177	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J
R190	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R191	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
R301	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
R310	RD-4Z432J-	R CARBON FILM	1/4 4.3K OHM J
R311	RD-4Z432J-	R CARBON FILM	1/4 4.3K OHM J
R330	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J
R331	RD-2Z201J-	R CARBON FILM	1/2 200 OHM J
R350	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J
R351	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J
R370	RD-4Z159J-	R CARBON FILM	1/4 1.5K OHM J
R394	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
R395	RD-AZ394J-	R CARBON FILM	1/4 390K OHM J
R396	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
R398	RW02Y109FS	R WIRE WOUND	2W 1 OHM F SMALL
R401	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J
R402	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R404	RD-2Z399J-	R CARBON FILM	1/2 3.9K OHM J
R406	RD-2Z182J-	R CARBON FILM	1/2 1.8K OHM J
R415	RS02Y102JS	R M-OXIDE FILM	2W 1K OHM J SMALL
R420	RD-2Z152J-	R CARBON FILM	1/2 1.5K OHM J
R450	RS02Y223JS	R M-OXIDE FILM	2W 22K OHM J SMALL
R490	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J
R500	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R501	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R502	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R503	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R504	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R506	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R507	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J
R508	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J
R509	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R511	RD-AZ133J-	R CARBON FILM	1/6 13K OHM J
R512	RN-4Z1502F	R METAL FILM	1/4 15K OHM F
R517	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R518	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R530	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R532	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R533	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R535	RD-AZ201J-	R CARBON FILM	1/6 200 OHM J
R537	RD-AZ201J-	R CARBON FILM	1/6 200 OHM J
R541	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R542	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R543	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J
R544	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
R548	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R550	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R555	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R560	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R561	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R562	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J
R563	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J

Symbol No.	Part No.	Part Name	Description
R566	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J
R568	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R569	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
R570	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J
R572	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R573	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R576	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
R577	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
R578	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J
R579	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J
R580	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J
R582	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R583	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R586	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J
R587	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R588	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R589	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J
R591	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J
R592	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R593	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R594	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
R595	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R596	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R597	RN-AZ3902F	R METAL FILM	1/6 39K OHM F
R598	RN-AZ3902F	R METAL FILM	1/6 39K OHM F
R599	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R601	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R602	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R605	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R606	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R608	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
R609	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
R614	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R615	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R620	RD-AZ242J-	R CARBON FILM	1/6 2.4K OHM J
R621	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R622	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R641	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R642	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R646	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R647	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R649	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R650	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R651	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R652	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R660	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R661	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R662	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J
R700	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
R709	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R710	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R711	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R712	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
R713	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
R720	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R721	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J
R722	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R723	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
R724	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
R801	DDC7ROM290	POSISTOR	ECPCD7ROM290
R802	RS02Y683JS	R M-OXIDE FILM	2W 68K OHM J SMALL
R803	RS02Y473JS	R M-OXIDE FILM	2W 47K OHM J SMALL
R804	RF02Y188K	R FUSIBLE	2W 0.18 OHM K
R805	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J
R806	RD-2Z472J-	R CARBON FILM	1/2 4.7K OHM J
R807	RD-2Z272J-	R CARBON FILM	1/2 2.7K OHM J
R808	RD-2Z821J-	R CARBON FILM	1/2 820 OHM J
R810	RD-AZ102J-	R CARBON FILM	1/4 1K OHM J
R811	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K
R817	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R819	RK10B339JN	R CEMENT	10W 3.3 OHM J BENCH 4P
R820	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R821	RD-AZ102J-	R CARBON FILM	1/4 1K OHM J
R823	RD-AZ682J-	R CARBON FILM	1/4 6.8K OHM J
R829	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R830	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
R841	RD-2Z470J-	R CARBON FILM	1/2 47 OHM J
R850	RS02Y369JS	R M-OXIDE FILM	2W 3.6 OHM J SMALL
R851	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J
R852	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R855	RD-AZ125J-	R CARBON FILM	1/4 1.2M OHM J
R870	RD-2Z222J-	R CARBON FILM	1/2 2.2K OHM J
R888	RD-4Z273J-	R CARBON FILM	1/4 27K OHM J
R901	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R902	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R903	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R906	RF01Y209JA	R FUSIBLE	1W 2 OHM J A CURVE
R910	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R911	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R912	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R913	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J

Symbol No.	Part No.	Part Name	Description
R921	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
R922	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
R923	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K
R983	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
R996	RD-2Z105J-	R CARBON FILM	1/2 1M OHM J
R997	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J
RA01	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J
RA02	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
RA03	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
RA04	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
RA05	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J
RA06	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA07	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J
RA08	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA09	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA10	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
RA11	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA12	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA13	RD-AZ113J-	R CARBON FILM	1/6 11K OHM J
RA14	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA16	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA19	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
RA29	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RA32	RD-AZ680J-	R CARBON FILM	1/6 68 OHM J
RA44	RD-AZ113J-	R CARBON FILM	1/6 11K OHM J
RA90	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J
RA91	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
RA92	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
RB10	RV5426103P	R SEMI FIXED	RH0638C 10K OHM B
L101	SCPX479K--	COIL PEAKING	4.7UH K RADIAL
L105	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L150	5.80E+42	COIL AFT	TRF-A005
L153	5CPZ120K02	COIL PEAKING	12UH 3.5MM K (LAL02TB)
L380	58C0000120	COIL CHOKE	CH-100Q
L381	58C0000120	COIL CHOKE	CH-100Q
L401	58H0000016	COIL H-LINEARITY	L-102 (102UH)
L501	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L502	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
L503	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L504	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L601	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L602	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L605	SCPZ479K02	COIL PEAKING	4.7UH 3.5MM K (LAL02TB)
L650	5MC0000100	COIL BEAD	MD-5 (HC-3550)
L801	5MC0000100	COIL BEAD	MD-5 (HC-3550)
L802	58CX430599	COIL CHOKE	AZ-9004Y 940K TP
LA01	SCPZ100K04	COIL PEAKING	10UH 10.5MM K (LAL04TB)
LA02	SCPZ100K04	COIL PEAKING	10UH 10.5MM K (LAL04TB)
LA03	SCPZ100K04	COIL PEAKING	10UH 10.5MM K (LAL04TB)
LA04	SCPZ100K04	COIL PEAKING	10UH 10.5MM K (LAL04TB)
T401	50D19A1---	TRANS DRIVE	TD-19A1
T402	50H0000240	FBT	1152.7001
T801	50M3934A9-	TRANS SMPS	2084.009
F801	5FSCB4022R	FUSE CERA	SEMKO F4AH 4A 250V MF51
F801A	4857415001	CLIP FUSE	PFC5000-0702
F801B	4857415001	CLIP FUSE	PFC5000-0702
G900	45G0DY0001	SPARK GAP	SSG-102-A1(1.0KV) BULK
G901	45G0DY0001	SPARK GAP	SSG-102-A1(1.0KV) BULK
G902	45G0DY0001	SPARK GAP	SSG-102-A1(1.0KV) BULK
G903	45G0DY0001	SPARK GAP	SSG-102-A1(1.0KV) BULK
JP01	4859102130	JACK EARPHONE	YSC-1537
JPA1	4859200401	SOCKET RGB	SR-21A1 (ANGLE TYPE)
JPA2	4859200401	SOCKET RGB	SR-21A1 (ANGLE TYPE)
JPA3	4859108450	JACK PIN BOARD	YSC03P-4120-14A
LF801	5PLF24A1--	FILTER LINE	LF-24A1
M351	4858900002	HOLDER LED AS	LH-3P
M601	4856813600	HOLDER WIRE	NYLON 66 DAWH-13NA
SC11	4859303530	SOCKET CRT	PCS629-03C
SF1	5PK3953M--	FILTER SAW	K3953M
SF2	5PK9650M--	FILTER SAW	K9650M
SW700	55S0101090	SW TACT	SKHV17910A
SW701	55S0101090	SW TACT	SKHV17910A
SW702	55S0101090	SW TACT	SKHV17910A
SW703	55S0101090	SW TACT	SKHV17910A
SW704	55S0101090	SW TACT	SKHV17910A
SW801	55A0101143	SW PUSH	PS3-22SP (P.C.B)
U100	4859722430	TUNER VARACTOR	UV1316/AIG-3
X501	5XE20R250E	CRYSTAL QUARTZ	HC-49/U 20.2500MHZ 30PPM
X601	5XE18R432E	CRYSTAL QUARTZ	HC-49/U 18.4320MHZ 30PPM
Z153	5PYXT5R5MB	FILTER CERA	XT5.5MB
Z601	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z602	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z603	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z604	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z605	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z606	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z607	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF
Z608	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF

PACKING



PACKING PARTS LIST

△ Ref.No.	Part No.	Part Name	Description
1	GPBBW3U7022	BOX	4pcs in 1et
2	485819A700	PAD	
4	4858211801	POLY BAG	
5	4858213801	BAG INSTRUCTION	
△ 6	PMJV3B3022	MANUAL	Eng, Fre, Ger, Ita, Psa, Dut
△ 6	PMJV3B3122	MANUAL	Pol, Cze, Rom, Hun, Bul
7	48BC1514B-	TRANSMITTER REMOCON (RM-C1514B)	[AV-21FT1BUG]
7	48BC1514--	TRANSMITTER REMOCON (RM-C1514)	[AV-21FT1SUG]
8	AV21FT1BUG	BOX LABEL	[AV-21FT1BUG]
8	AV21FT1SUG	BOX LABEL	[AV-21FT1SUG]
--	BT-54013-6L	WARRANTY CARD	